

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000173**Date Inspected:** 18-May-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wei Huang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** 52, 55**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe quality control functions related to welding, testing and fabrication procedures at the Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

At 1000 hours, Caltrans QA Inspector witnessed ZPMC welder, Mr. Xiang Jie perform gas metal arc welding (GMAW) procedure qualification record (PQR), HP200783 test. Caltrans QA observed ZPMC QA Inspector, Mr. Wei Huang and two associates monitoring and supervising the testing per AWS 5.13 criteria; amperages, voltages, travel speeds, preheat and interpass temperatures. Also present during testing, American Bridge/Fluor representative, Mr. Craig Knop. The test plate material type and thickness is identified as A709 Gr.345T2, 25 mm with A709 Gr.345T2, 20 mm thick backing. The test plate groove preparation was observed to have an approximately 6 mm root opening with a 45 degree groove angle. The PQR testing was performed in the 1G position. The welding consumable is identified as a 1/4 mm electrode, classification ER70S6, brand name JM-56, and specification AWS A5.18. Caltrans QA inspector recorded welding parameters, one (1) through twenty (20) weld passes. Caltrans QA verified that the welding parameters taken by ZPMC QC inspector appeared to be accurate and in accordance with the contract documents. Caltrans QA observed that the ZPMC testing location for wind velocity, appear to be in conformance with AWS D1.5, paragraph 4.14.3 requirements. The completed PQR test plate was visually inspected by, Mr. Wei Huang and accepted. Mr. Wei Huang informed Caltrans QA of the inspection results. Caltrans QA observed that the finished weld appeared to comply with contract documents. Caltrans QA lot number B49-025-07 was assigned to the test plate for traceability. See Caltrans Welding Witness Report, TL-6032, dated May 18, 2007 for additional information.

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

As identified within the contents of this report.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hasler, Mike	Quality Assurance Inspector
<b>Reviewed By:</b>	McClary, David	QA Reviewer

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